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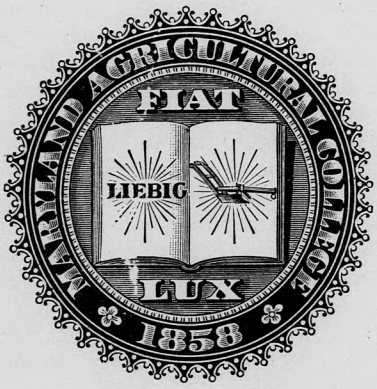

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ADDRESS

Chemical Department, Maryland Agricultural College,

COLLEGE PARK, MD.

ANALYSIS OF FEED STUFFS SOLD IN MARYLAND.

BY THE CHEMICAL DEPARTMENT OF THE

MARYLAND AGRICULTURAL COLLEGE.

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We present in the accompanying table the analysis, as to protein and fat, of samples of all concentrated feeds that we could find on sale in Maryland during the past season. No attempt has been made to get a large number of duplicate samples of the same brand of feed, or to get any samples of feeds that are not classed as "concentrated," such as cornmeal and bran. These feeds are well known, and we have no reason to suspect that they are being extensively adulterated.

The grains grown on the farm for feed, as corn and oats, are rich in starch, which is a valuable fuel food, and may produce fat, but cannot form flesh. Hence the necessity for protein foods to supplement the ordinary products of the farm, especially for growing animals and for milk and egg production. The ordinary foods of the farm are deficient in protein for these purposes, hence, the amount of protein in the foods purchased is of first importance.

The amount of fat is important, especially in concentrated feeds, which are poor in starch, because it can replace starch and sugar (carbohydrates) to a certain extent, as an energy-producer, in which it is two and one-fourth times as efficient. That is, one pound of fat represents as much energy (work, heat, etc.) as two and one-fourth pounds of carbohydrates. It is not desirable, however, to have a great excess of fat in the feed, as aside from the waste, it is liable to interfere with the digestion of the animal.

The composition of feeds will vary some, depending on the method of milling and preparation, and also on the variation in composition of the grain itself. This variation, however, should not be large.

The following table indicates the minimum analysis of the feeds named, when same are first class. Any considerable deviation from these figures would indicate that the feed is adulterated:

		PROTEIN.	FAT.
Protein Foods.	Cotton Seed Meal	43 per cent.	8 to 9 per cent.
	Linseed or Flax Seed Meal	36 "	7 "
		38 "	2 " (new process)
	Gluten Meal	33 to 36 "	2 "
	Gluten Feed	25 "	3 "
	Germ Oil Meal	23 "	10 "
	Malt Sprouts	23 "	1 to 2 "
	Dried Brewer's Grains	20 "	3 "
	Wheat Middlings	18 "	5 "
	Wheat Bran	15 "	4 to 5 "
Starch Foods.	Ground Oats	10 to 12 "	4 to 5 "
	Corn Meal	9 to 11 "	3 to 5 "
Poultry Food.	Meat and Bone Meal	40 "	10 "
	Meat Scrap	50 "	

The law requires that all concentrated feeds be sold with the guaranteed analysis attached. This is generally done, but we still find some evasion. Users of such feeds should refuse to accept them unless the law is complied with. It is for the protection of the farmer.

The attention of manufacturers and dealers is called to the provisions of the law requiring guaranteed analysis and license of concentrated feeds.

No	Name of Manufacturer or Agent.	Name of Food Stuff.	Place of Sampling.
6978	The Akron Cereal Co. Akron, Ohio.	Royal Oat Feed.....	Baltimore.....
6985	The Americn Cereal Co., Chicago, Ill.	American Poultry Food	Fallston.....
7010	" " "	Buckeye Wheat Feed..	New Windsor.....
6966	" " "	Quaker Dairy Feed....	Hagerstown .....
6986	" " "	Quaker Dairy Feed....	Alesia.....
6977	" " "	" " "	Baltimore.....
6964	" " "	Rock River Calf Meal..	Hagerstown..... ...
6965	" " "	Schumacher's Stock Food (C. O. & B.) ...	Hagerstown.....
6968	" " "	Victor Corn and Oats Feed.	Hagerstown.....
6979	" " "	Victor Corn and Oats Feed.	Baltimore.....
6980	The Amer. Cotton Oil Co., N. Y.	Prime Cotton Seed Meal.	Baltimore.....
6981	The Amer. Linseed Co., New York.	Pure Old Process Meal	Baltimore.....
6988	W. G. Bishop & Co., Baltimore, Md.	Cotton Seed Meal.....	Baltimore.....
7009	" " "	Cotton Seed Meal.....	Frizzleburg.....
7011	" " "	Old Process Linseed Meal.	Medford.....
7015	Chapin & Co., St. Louis, Mo.	Green Diamond Brand Cotton Seed Meal	.....
7012	Glucose Sugar Refining Co., Chicago, Ill.	Chicago Gluten Meal..	College Park.....
7016	" " "	Davenport Dairy Food Gluten Feed.	Rising Sun.....
6982	Great Western Cereal Co., Chicago Ill.	Boss Oat and Corn Chop	Baltimore. .. ....
7000	" " "	Durham Corn and Oat Feed.	Baltimore.....

No.	Protein (Nx6.25).		Fat or Ether Extract.		Moisture.
	Found.	Guaranteed.	**Found.**	Guaranteed.	
6978	6.75	8.25	2.46	4.14	6.13
6985	14.44	.....	6.26	....	8.90
7010	17.97	17.75	4.38	4.76	7.29
6966	14.60	12.03	3.21	2.50	6.58
6986	14.38	12.00	3.06	2.50	6.89
6977	14.38	12.03	2.96	2.50	7.25
6964	16.10	.....	7.35	....	7.24
6965	12.60	10.70	4.41	3.28	7.16
6968	9.38	8.23	3.31	3.00	10.22
6979	9.16	8.23	3.16	3.00	7.35
6980	44.32	41.00	11.21	9.00	8.24
6981	32.66	....	7.83	.....	10.71
6988	40.03	....	9.94	.....	9.26
7009	21.95	25.00	5.16	6.00	7.19
7011	33.22	33.00	6.57	7.00	8.46
7015	43.91	43.00	13.18	9.00	7.06
7012	39.56	30.00	3.19	2.00	5 35
7016	26.06	27.50	4.70	3.30	.....
6982	8.41	7.84	3.49	4.18	6.29
7000	7.60	.....	3.23	.....	8.23

No.	Name of Manufacturer or Agent.	Name of Food Stuff.	Place of Sampling.
7001	Great Western Cereal Co., Chicago, Ill.	Royal Oat Feed.....	Baltimore .....
6975	The H. O. Co., Buffalo, N Y.	H. O. Dairy Food.....	Baltimore .....
6976	" " " "	H. O. Horse Food.....	Baltimore.....
6974	" " " "	H. O. Poultry Food....	Baltimore .....
7007	Huenstein & Co.....	Old Process Linseed Meal.	Uniontown .....
7014	Jno. F. Lewis & Bro. Co., Philadelphia, Pa.	Linseed Cake Meal.....	Frederick.....
6992	The McCormick Cotton Oil Co., McCormick, S. C.	Cotton Seed Meal.....	Baltimore .....
6993	Midland Linseed Oil Co., Minneapolis, Minn.	Linseed Meal.....	Baltimore .....
6984	The N. Carolina Cotton Oil Co., Wilmington, N. C.	Cotton Seed Meal.....	Baltimore.....
6983	H. L. Pope & Co., Dayton, Ohio.	Pure Ground Oil Cake.	Baltimore.....
6994	Pratt Food Co., Philadelphia, Pa.	Pratt's Horse Food....	Baltimore.....
6972	Rankin & Kane, Balto. Md.	Prime Cotton Seed Meal.	Long Green .....
7013	The Toledo Linseed Oil Co., Toledo Ohio.	Linseed Oil Meal.....	Frederick.....
7017	F. Walton Co., Philadelphia, Pa.	Prime Cotton Seed Meal.	Colora.....
6990	.....	Corn Offal from Distillery.	Baltimore.....
7005	....	Dried Distiller's Grains.	Bynum.....
7002	.....	Rye Sprouts. (Distillery By-Product.)	Towson.....
7005½	.....	White Sunflower Seeds	Pleasant Hill.....
7005⅛	.....	Striped Sunflower Seeds.	Pleasant Hill.....
7005¼	.....	Black Sunflower Seeds.	Pleasant Hill.....

No.	Protein (Nx6. 25).		Fat or Ether Extract.		Moisture.
	Found.	Guaranteed.	**Found.**	Guaranteed.	
7001	7.44	8.25	3.25	4.10	5.81
6975	20.25	18.00	3.75	4.50	8.00
6976	13.72	12.00	4.18	4.50	8.16
6974	16.50	17.00	4.58	5.50	9.09
7007	35.62	37.82	8.20	7.54	6.81
7014	36.94	32.00	6.73	5.20	8.22
6992	58.32	.....	9.02	.....	9.30
6993	25.66	.....	7.83	.....	10.71
6984	41.13	.....	13.57	.....	8.06
6983	36.13	.....	5.14	.....	7.67
6994	16.28	.....	9.14	.....	9.33
6972	41.35	41.00	17.83	9.00	9.85
7013	32.44	.....	8.31	.....	8.43
7017	43.66	43.00	10.58	9.00	.....
6990	29.78	.....	12.48	.....	3.97
7005	33.47	.....	11.83	.....	8.00
7002	29.94	.....	1.23	.....	5.64
7005½	15.10	.....	23.37	.....	.....
7005⅛	18.47	.....	25.57	.....	.....
7005¼	22.60	.....	28.28	.....	.....

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